Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Perjury Statement

To Whom It May Concern:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached reports, Semi-annual groundwater monitoring Report, 2nd quarter 2014 for the site at 3442 Adeline Street, Oakland, CA, is true and correct to the best of my knowledge.

Signed: Steffi Zimmerman Dated 5/27/14

May 21, 2014

SEMI-ANNUAL GROUNDWATER MONITORING REPORT
Second Quarter, 2014

Property Identification:
3442 Adeline Street
Oakland, California

AEI Project No. 281939
ACEH Site: RO 02936

Prepared for:
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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report on behalf of Ms. Steffi Zimmerman, the owner of the property located at 3442 Adeline Street in the City of Oakland, Alameda County, California. AEI has been retained by Ms. Zimmerman to provide environmental engineering and consulting services relating to the release of gasoline from a former underground storage tank (UST) on the property.

Previous site investigations have identified a release of gasoline from the former UST. This report summarizes the results of the Second Quarter 2014 Semi-Annual Groundwater Monitoring event.

2.0 SITE DESCRIPTION AND BACKGROUND

The subject site (hereinafter referred to as the "site" or "property") is located on the southwest corner of 35th Street and Chestnut Street in a mixed commercial, industrial and residential area of Oakland. The Main entrance to the property is on 3442 Adeline Street. A second entrance is located at 3433 Chestnut Street. The on-site building covers approximately 65% of the property and is currently being used as a warehouse facility. Refer to Figure 2 for an aerial photo of the property and Figure 3, Site Plan.

2.1 Tank Closure

A single-wall 3,750 gallon UST was removed from the site on February 22, 2000. Analyses of the sidewall soil samples reported Total Petroleum Hydrocarbons as gasoline (TPH-g), Total Petroleum Hydrocarbons as diesel (TPH-d) and benzene at concentrations up to 920 milligrams per kilogram (mg/kg), 850 mg/kg, and 0.3 mg/kg, respectively. TPH-g, TPH-d, and benzene were reported in the excavation groundwater sample at concentrations of 7,400 micrograms per liter (µg/L), 34,000 µg/L, and 3,300 µg/L, respectively. The location of the former UST and sample locations are presented in Figure 3 for site features.

2.2 Site Investigations

2006 Clearwater Investigation
On June 23, 2006 Clearwater Group (Clearwater) advanced four (4) soil borings (S1 - S4) on the subject site. The location of soil borings are shown in Figure 3.

Analysis of the soil samples reported TPH-g, TPH-d and benzene at concentrations up to 1,200 mg/kg, 250 mg/kg, and 1.3 mg/kg, respectively. Analysis of groundwater samples reported TPH-g, and benzene, toluene, ethylbenzene, and xylenes (BTEX) at concentrations up to

120,000 µg/L, 7,000 µg/L, 260 µg/L, 3,500 µg/L, and 3,300 µg/L, respectively. TPH-d was reported as non-detectable at reporting limits ranging from 1,500 µg/L to 40,000 µg/L.

2007 – 2008 AEI Investigation

In October and December of 2007 and May of 2008, AEI advanced thirty-one soil borings (SB-1 through SB-31) to depths up to 16 feet below the ground surface (bgs) and three (3) soil vapor samples (VB-1 through VB-3). Soil boring and vapor sample locations are shown on Figure 3.

The maximum concentrations of TPH-g, TPH-d, and benzene reported in soil analyses were 1,200 mg/kg, 450 mg/kg, and 6.9 mg/kg, respectively. Methyl tertiary butyl ether (MTBE) was reported in only one sample, SB-11-15.5, at a concentration of 0.14 mg/kg. The maximum concentrations of TPH-g, TPH-d and benzene reported in groundwater were 83,000 µg/L, 12,000 µg/L, and 10,000 µg/L, respectively.

The results of these and previous soil, soil vapor, and groundwater analyses can be found in *Site Investigation Report*, dated February 14, 2008 and *Groundwater Monitoring Well Installation Report*, dated July 31, 2009.

2009 Interim Source Removal

During March and April of 2009, AEI excavated impacted soil from down gradient of the former UST and inside the building. The excavation measured 35 feet by 70 feet by approximately 12 feet deep. The base of the excavation was backfilled with a layer of permeable rock to allow normal groundwater movement. Five (5) 4-inch diameter casings were installed in the permeable bridge to allow dewatering of the excavation. These casings, BF-1 through BF-5, were left in place. The excavation and backfill activities are summarized in the *Interim Source Removal Report*, dated August 31, 2009.

2009 Well Installation

On April 1 - 2, 2009 and May 12 - 13, 2009, AEI advanced eight soil borings (MW-1 through MW-7 and IW-1) at the property and converted seven (7) of the borings (MW-1 through MW-7) into groundwater monitoring wells and one boring (IW-1) into an injection/sparge well. The monitoring wells were installed at a depth of 17 feet bgs; the sparge well was installed at a depth of 15 feet bgs. The locations of the wells are shown on Figure 3. The details of the well installation are summarized in the *Groundwater Monitoring Well Installation Report*, dated July 31, 2009.

3.0 ENVIRONMENTAL CONCERNS

3.1 Soil

Gasoline contamination has been identified in the shallow soil at significant concentrations (>83 mg/kg) between depths of 7.5 feet and 12 feet bgs, except in the area of well MW-6. Maximum concentrations of TPH-g, and benzene reported in the tank removal confirmation samples were

920 mg/kg and 0.3 mg/kg, respectively. Maximum concentrations of TPH-g and benzene reported in soil boring samples (SB-3) were 1,200 mg/kg and 6.9 mg/kg, respectively. The distribution of hydrocarbons in the soil is variable and appears related to variations in lithology and permeability.

3.2 Groundwater

The primary contaminant reported in soil and groundwater analyses is gasoline range hydrocarbons with related BTEX. Diesel range hydrocarbons are reported in the groundwater but examinations of chart patterns show the diesel range hydrocarbons to be the heavy end of weathered gasoline. Despite the weathered nature of the gasoline, benzene concentrations remain high.

Examination of EPA Method 8015Bm chromatograph charts for groundwater samples from soil borings SB-16, SB-18 and SB-19 show the presence of a hydrocarbon centered in the overlap area of the diesel and motor oil ranges. These borings are located on the up gradient edge of the plume on Chestnut Street and are up gradient of the former UST location. These heavier than gasoline range hydrocarbons suggest a separate release has occurred up gradient of the site, possibly of heavy heating oil composition.

Maximum concentrations of TPH-g and BTEX reported in groundwater samples from soil borings were 120,000 µg/L (S-4), 10,000 µg/L (SB-11) 930 µg/L (SB-11), 3,500 µg/L (S-4), and 7,900 µg/L (SB-11), respectively. Contaminant concentrations reported in groundwater samples from monitoring wells were significantly lower than earlier concentrations reported from soil borings. The higher concentrations in soil boring water samples are believed to have resulted from hydrocarbons adsorbed to sediment in the muddy grab water samples. Maximum TPH-g and BTEX reported in monitoring wells were in samples from MW-2 on August 27, 2009 at concentrations of 26,000 µg/L, 3,600 µg/L, 70 µg/L, 1,500 µg/L, and 3,000 µg/L, respectively. No MTBE has been reported in monitoring well groundwater samples.

The calculated direction of groundwater flow is to the west, however the orientation of the hydrocarbon plume and hydrocarbon distribution in the groundwater indicates that the actual groundwater flow is somewhat sinuous and appears to follow permeability channels (sands and gravels).

Historically depth to groundwater has ranged from 3.25 feet bgs (MW-5, 27.14 ft. above mean seal level (amsl) 5/5/2011) to 11.84 feet bgs (MW-6, 17.50 ft amsl 8/27/2009).

4.0 GEOLOGY AND HYDROLOGY

The site lies on the distal end of the Temescal Creek Alluvial Fan at approximately 45 feet amsl. The Temescal Alluvial Fan is a low relief broad fan sloping westerly and southwesterly from the mouth of the Temescal Creek. The Holocene age alluvial fan deposits are mapped as Qhaf

(Helley 1997). The sediments are described as typically, brown to tan gravelly sand or sandy gravel, which generally grades upward into sandy or silty clay.

At the subject site the sediments in the upper four (4) to five (5) feet underlying the site are black silty clay – clayey silt containing variable amounts of scattered gravel. These sediments are considered to be bay margin sediments.

The shallow fine grained surface layer is underlain by alluvial deposits of intercalated, lenticular bodies of silt, clay, sand, and gravel. The sediments are typically highly variable mixtures of the four primary lithologies. Permeability (transmissivity) of the coarse grained sediments is typically low due to the presence of interstitial clay; however scattered clean sands and gravels are present with good permeability. These permeable bodies appear to act as preferential channels for groundwater flow across the site and are the likely cause of the slightly sinuous, asymmetric appearance of the hydrocarbon plume in the soil and groundwater.

5.0 SUMMARY OF GROUNDWATER SAMPLING ACTIVITIES

The 2nd quarter 2014 Semi Annual Groundwater Monitoring event was performed on April 30, 2014. The well caps were removed from each well (MW-1, MW-2, MW-4, MW-6 through MW-7, and IW-1. The wells were allowed to equilibrate with the atmosphere for a minimum of 30 minutes. Well MW-3 has not been located since December 15, 2009 and appears to have been covered during floor leveling at that time. Well MW-5 was covered by a large pile of building materials at the time of the monitoring event and was not accessable.

Depth to water was measured to the nearest one hundredth of a foot with an electronic depth to water meter. The depth to water measurements from this and previous quarterly monitoring events are summarized on Table 2.

The monitoring wells were purged with a peristaltic pump with the sampling tubing at a depth opposite of the permeable sand/gravel in each well. Groundwater parameters of temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured during purging. A visual evaluation of turbidity was made and noted. Groundwater measurements recorded in the field are reported on the field sampling forms included in Appendix A.

Groundwater samples were also collected from backfill casings BF-1 and BF-5 using a peristaltic pump after purging approximately 3.0 liters of water.

When groundwater parameters of the purged water stabilized, water samples were collected using the peristaltic pump. Samples for TPH-g and MBTEX were collected in hydrochloric acid (HCl) preserved 40-milliliter (ml) volatile organic analysis vials (VOAs). All samples were labeled with at minimum, project number, sample number, time, date, and sampler's name.

The samples were entered on a chain-of-custody form and placed on ice in a cooler pending same day transportation under chain of custody protocols to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification # 1644).

Groundwater samples from the wells were analyzed for TPH-g, MTBE, benzene, toluene, ethyl-benzene, and total xylenes (MBTEX), by SW8021B/8015Bm.

5.1 Field Results

Second Quarter 2014 water table elevations in the accessible monitoring wells ranged from 24.75 (MW-7) to 23.45 (MW-6) feet above mean sea level (amsl). These elevations are an average of 1.21feet HIGHER than at the time of the previous monitoring event on April 4, 2013. The groundwater hydraulic gradient was approximately 0.01 ft/ft to the west. The westerly groundwater flow direction and hydraulic gradient is consistent with previous monitoring events.

Current and historical groundwater elevation data are summarized in Table 2. The groundwater elevation contours and the groundwater flow direction are presented in Figure 4. Groundwater Monitoring Well Field Sampling Forms are presented in Appendix A.

6.0 ANALYTICAL RESULTS

6.1 Backfill Casings (BF-1 and BF-5)

On April 30, 2014, TPH-g, BTEX and MTBE concentrations in backfill casings BF-1 and BF-5 continued to be reported as non-detectable at standard laboratory reporting limits.

6.2 Monitoring Wells

Changes in TPH-g and benzene concentrations are summarized below. Toluene, ethylbenzene and total xylenes concentrations are not detailed below but typically vary in a similar fashion to benzene concentrations.

The TPH-g concentration in monitoring well MW-1 increased from ND<50 µg/L on April 4, 2013 to 83 µg/L on April 30, 2014. Benzene continues to be reported as non-detectable at standard laboratory reporting limits.

The TPH-g concentrations in monitoring well MW-2 decreased from 7,900 µg/L on April 4, 2013 to ND<50 µg/L on April 30, 2014. Benzene concentrations in MW-2 decreased from 960 µg/L April 4, 2013 to ND<0.5 µg/L on April 30, 2014.

The TPH-g concentrations in monitoring well MW-4 decreased from 1,000 µg/L on April 4, 2013 to ND<50 µg/L on April 30, 2014. Benzene concentrations in MW-4 decreased from 30 µg/L April 4, 2013 to ND<0.5 µg/L on April 30, 2014.

The TPH-g concentration in monitoring well MW-6 decreased from 5,300 µg/L on April 4, 2013 to 670 µg/L on April 4, 2013. Benzene concentrations in MW-6 decreased from 76 µg/L April 4, 2013 to 12 µg/L on April 30, 2014.

The TPH-g concentration in monitoring well MW-7 decreased from 12,000 µg/L on April 4, 2013 to 220 µg/L on April 4, 2013. Benzene concentrations in MW-6 decreased from 2,800 µg/L April 4, 2013 to 39 µg/L on April 30, 2014.

The TPH-g and benzene concentrations in monitoring well IW-1 continues to be reported as non-detectable at standard laboratory reporting limits.

A summary of groundwater analytical data is presented in Table 3 and Figure 5. TPH-g contaminant isopleths are presented in Figure 6. Laboratory results and chain of custody documents are included in Appendix B.

7.0 SUMMARY

TPH-g concentrations in the wells ranged from 670 µg/L (MW-6) to ND<50 µg/L (MW-2, MW-4, IW-1, BF-1, and BF-5). Benzene concentrations in the wells ranged from 39 µg/L (MW-7) to ND<0.5 µg/L (MW-1, MW-2, MW-54, IW-1, BF-1, and BF-5).

TPH-g was not reported in the excavation backfill casings despite historic higher hydrocarbon concentrations in the up gradient monitoring well MW-7. This appears to be due to the high concentrations of dissolved oxygen (DO) maintained in the permeable fill in the base of the backfilled excavation. The oxygenated excavation has cut off the hydrocarbon plume originating up gradient and the oxygenated groundwater moving down gradient through the gravel layers has significantly enhanced biodegradation of hydrocarbons in the groundwater and in adjacent finer grained soil.

The next groundwater monitoring event is tentatively scheduled for October 2013, before the wet season begins.

8.0 ACTIVITIES PLANNED FOR NEXT QUARTER

AEI has submitted a Data Gap Workplan designed to further delineate the extent of the hydrocarbons in the soil and groundwater. AEI is prepared to go forward with the investigation upon approval by the ACEH

9.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide requested information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses and observations. Conclusions beyond those stated and reported herein should not be inferred from this document.

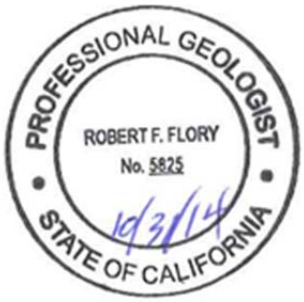
These services were performed in accordance with generally accepted practices in the geologic, environmental engineering and construction fields that existed at the time and location of the work

Please contact either of the undersigned at (925) 746-6000, or by e-mail at rflory@aeiconsultants.com if you have any questions or need any additional information.

Sincerely,
AEI Consultants

Jeremy Smith
Senior Project Manager

Robert F. Flory, PG
Senior Geologist/Project Manager



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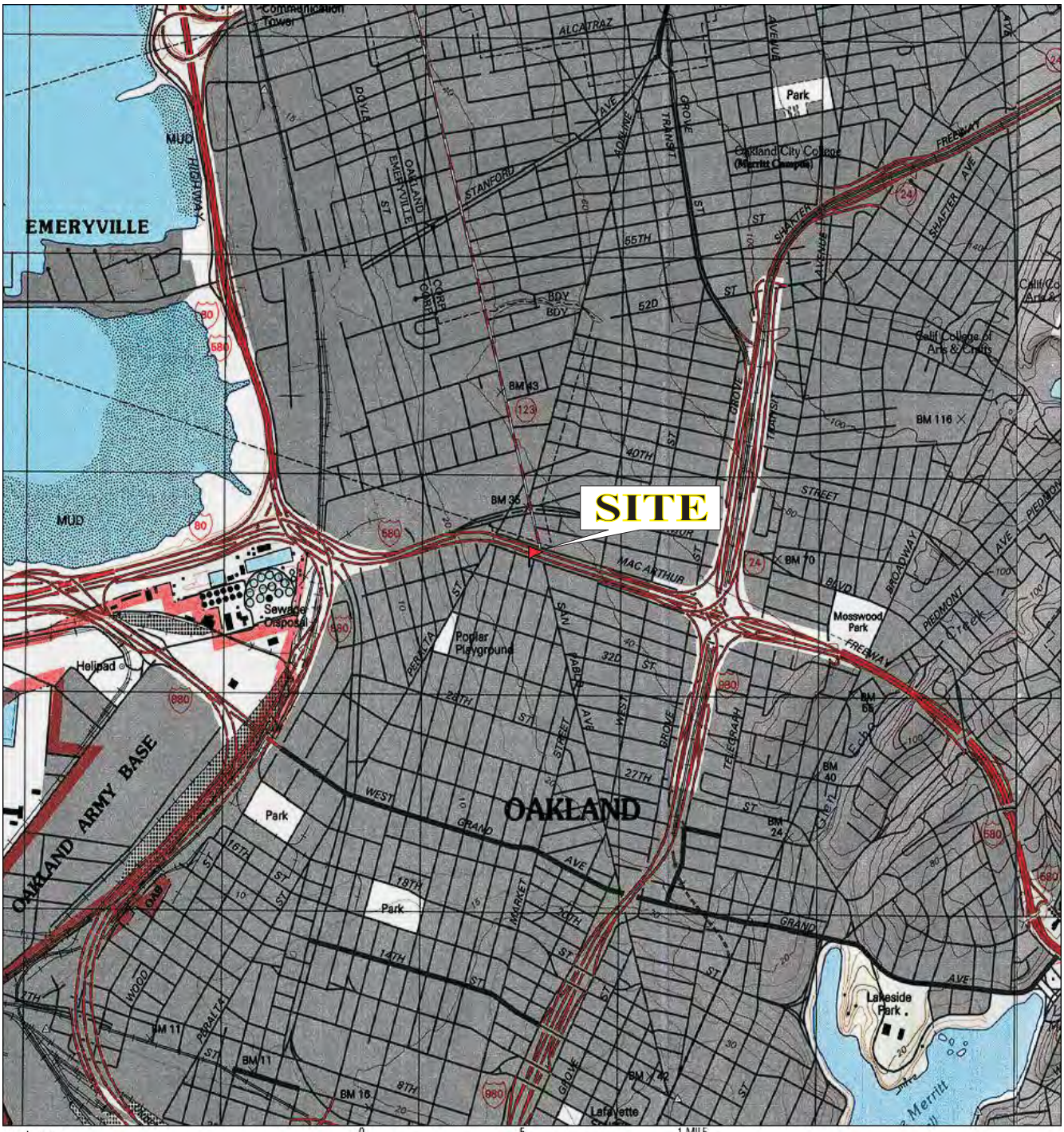
GeoTracker

File

FIGURES



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Site Location Map

3442 Adeline Street
Oakland, CA 94608

FIGURE 1
Job No: 281939

Property Boundary

Former UST Area

Approximate Scale:
1 inch = 55 feet

0’ 55’

N

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Site Vicinity Map

3442 Adeline Street
Oakland, CA 94608

FIGURE 2
Job No: 281939

LEGEND

DRAFTED BY RFF

- Monitoring Well/Backfill Casings
- AEI Soil Boring
- Clear Water Soil Boring
- Former Gasoline UST
- Interim Source Removal Excavation

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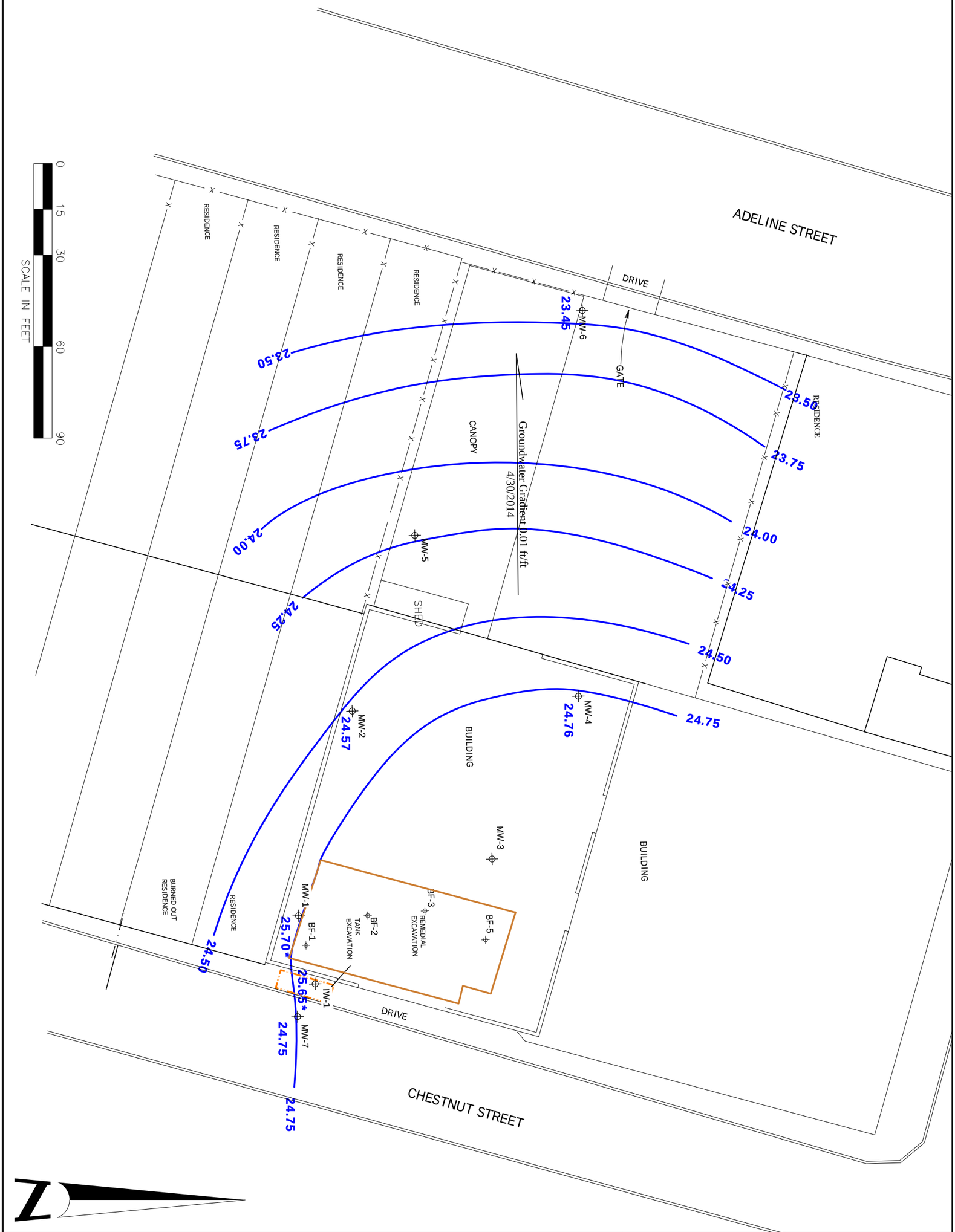
2500 CAMINO DIABLO, WALNUT CREEK

SITE MAP

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 281939



LEGEND

DRAFTED BY RFF

- Monitoring Well/Backfill Casing
  Groundwater Elevation
  24.75 Feet Above Mean Sea Level
- Groundwater Elevation Contour
- 25.70* Elevation Not Used For Contouring
- Former Gasoline UST
- Interim Source Removal Excavation

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2500 CAMINO DIABLO, WALNUT CREEK

Groundwater Gradient Map (4/30/2014)

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 281939

LEGEND

DRAFTED BY RFF

- Monitoring Well
- NS Not Sampled
- backfill casing
- Former Gasoline UST
- Interim Source Removal Excavation

G 86
B <0.5

Total Petroleum Hydrocarbons as gasoline (Units µg/L)

<0.5 = not reported at or above the stated detection limit

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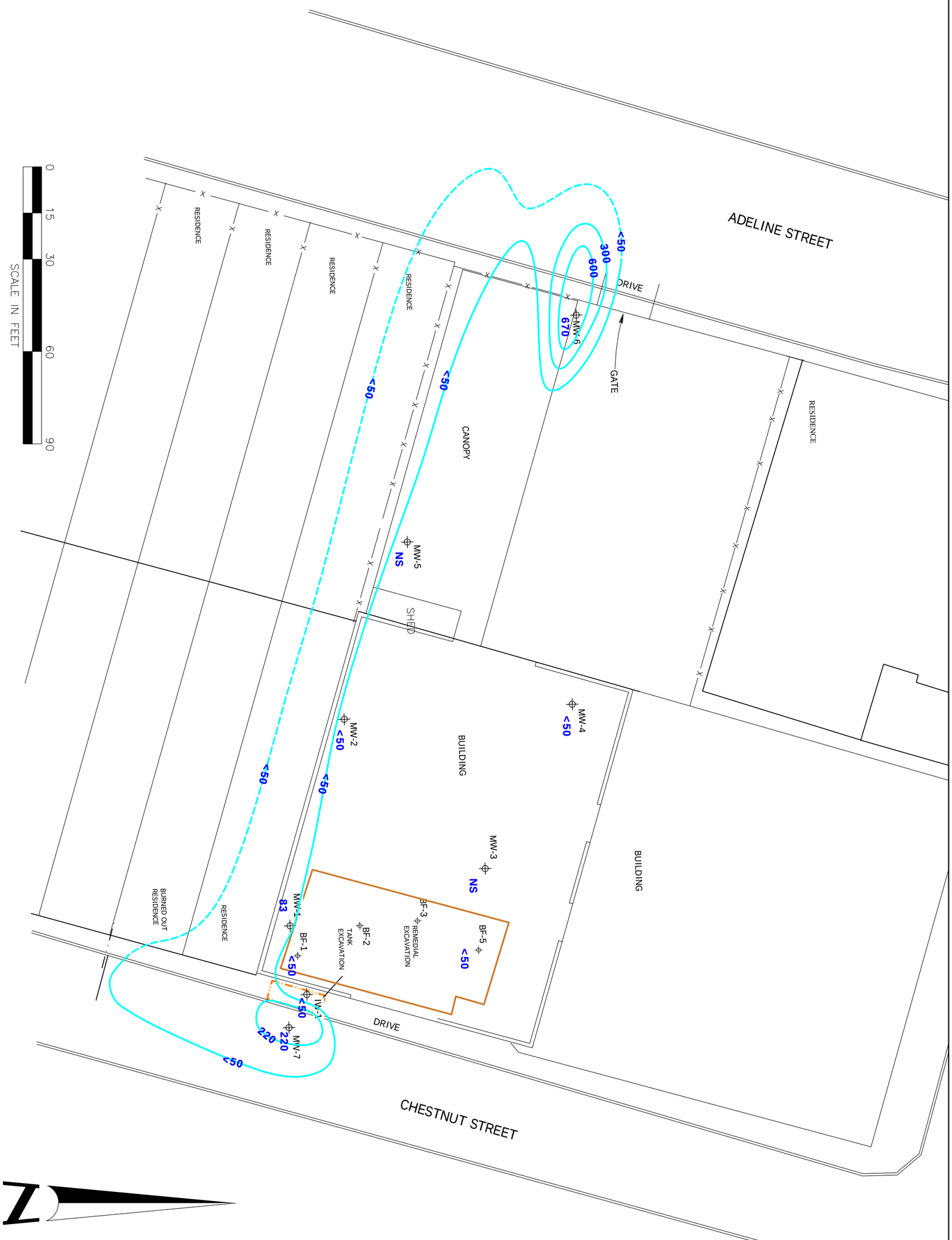
2500 CAMINO DIABLO, WALNUT CREEK

GROUNDWATER ANALYTICAL DATA (4/30/2014)

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 5
PROJECT NO. 281939



LEGEND

DRAFTED BY RFF

- Monitoring Well
- Backfill Casing
- TPH-g Contour
- Former Gasoline UST
- Interim Source Removal Excavation

TPH-g = Total Petroleum Hyydrocarbons as gasoline (Units µg/L)

<50 = not reported at or above the stated detection limit

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2500 CAMINO DIABLO, WALNUT CREEK

Total ptetroleum Hydrocarbons as gasoline (4/30/2014)

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 6
PROJECT NO. 281939

TABLES

Table 1: Monitoring Well Construction Details
3442 Adeline Street St. Oakland, CA 94608

Well ID	Date Installed	Top of Casing Elevation (ft amsl)	Well Box Rim Elevation (ft amsl)	Depth to Water 4/30/14 (ft)	Well Depth (ft)	Casing Material	Casing Diameter (in)	Slotted Casing (ft)	Slot Size (in)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	04/01/09	31.12	32.13	5.42	17	PVC	4	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-2	04/01/09	31.19	31.43	6.62	17	PVC	4	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-3	04/01/09	32.07	32.39	----	17	PVC	4	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-4	04/02/09	31.68	31.98	6.92	17	PVC	2	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-5	05/12/09	30.39	30.82	----	17	PVC	2	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-6	04/02/09	29.34	29.96	5.89	17	PVC	2	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
MW-7	05/13/09	31.04	31.45	6.29	17	PVC	2	7-17	0.020	6-17	# 2/12	4-6	0.75 - 5
IW-1	05/12/09	31.66	31.90	6.01	15	PVC/ stainless	2	13-15	40 mesh	12-15	# 2/12	11-12	0.75-12

Notes:
ft amsl = feet above mean sea level ft btc = feet below top of casing

Table 2: Groundwater Elevation Data

3442 Adeline Street St. Oakland, CA 94608

Well ID (Screen Interval)	Date Collected	Top of Casing Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
MW-1 (7-17)	6/10/2009	31.12	7.01	24.11	----
	8/27/2009	31.12	6.96	24.16	0.05
	12/15/2009	31.12	5.96	25.16	1.00
	3/12/2010	31.12	5.06	26.06	0.90
	10/21/2010	31.12	7.00	24.12	-1.94
	5/5/2011	31.12	5.88	25.24	1.12
	4/25/2012	31.12	5.33	25.79	0.55
	12/12/2012	31.12	5.35	25.77	-0.02
	4/4/2013	31.12	6.63	24.49	-1.28
	4/30/2014	**31.12**	**5.42**	**25.70**	**1.21**
MW-2 (7-17)	6/10/2009	31.19	9.50	21.69	----
	8/27/2009	31.19	10.50	20.69	-1.00
	12/15/2009	31.19	8.68	22.51	1.82
	3/12/2010	31.19	5.09	26.10	3.59
	10/21/2010	31.19	7.51	23.68	-2.42
	5/5/2011	31.19	6.68	24.51	0.83
	4/25/2012	31.19	5.58	25.61	1.10
	12/12/2012	31.19	6.47	24.72	-0.89
	4/4/2013	31.19	7.56	23.63	-1.09
	4/30/2014	**31.19**	**6.62**	**24.57**	**0.94**
MW-3 (7-17)	6/10/2009	32.07	8.44	23.63	----
	8/27/2009	32.07	8.59	23.48	-0.15
	12/15/2009	32.07	7.66	24.41	0.93
	3/12/2010	Well inaccessible	----	----	----
	10/21/2010	Well inaccessible	----	----	----
MW-4 (7-17)	6/10/2009	31.68	9.45	22.23	----
	8/27/2009	31.68	10.29	21.39	-0.84
	12/15/2009	31.68	8.19	23.49	2.10
	3/12/2010	31.68	5.45	26.23	2.74
	10/21/2010	31.68	9.93	21.75	-4.48
	5/5/2011	31.68	6.60	25.08	3.33
	4/25/2012	31.68	5.73	25.95	0.87
	12/12/2012	31.68	6.21	25.47	-0.48
	4/4/2013	31.68	7.88	23.80	-1.67
	4/30/2014	**31.68**	**6.92**	**24.76**	**0.96**

Table 2: Groundwater Elevation Data

3442 Adeline Street St. Oakland, CA 94608

Well ID (Screen Interval)	Date Collected	Top of Casing Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
MW-5	6/10/2009	30.39	9.13	21.26	----
(7-17)	8/27/2009	30.39	9.54	20.85	-0.41
	12/15/2009	30.39	8.33	22.06	1.21
	3/12/2010	Well inaccessible	----	----	----
	10/21/2010	30.39	6.85	23.54	1.48
	5/5/2011	30.39	3.25	27.14	3.60
	4/25/2012	30.39	4.50	25.89	-1.25
	12/12/2012	30.39	5.43	24.96	-0.93
	4/4/2013	30.39	7.25	23.14	-1.82
	4/30/2014	**Well inaccessible**	----	----	----
MW-6	6/10/2009	29.34	9.98	19.36	
(7-17)	8/27/2009	29.34	11.84	17.50	-1.86
	12/15/2009	29.34	8.33	21.01	3.51
	3/12/2010	29.34	4.66	24.68	3.67
	10/21/2010	29.34	10.00	19.34	-5.34
	5/5/2011	29.34	5.59	23.75	4.41
	4/25/2012	29.34	4.82	24.52	0.77
	12/20/2012	29.34	5.23	24.11	-0.41
	4/4/2013	29.34	7.37	21.97	-2.14
	4/30/2014	**29.34**	**5.89**	**23.45**	**1.48**
MW-7	6/10/2009	31.04	6.53	24.51	----
(7-17)	8/27/2009	31.04	6.19	24.85	0.34
	12/15/2009	31.04	5.71	25.33	0.48
	3/12/2010	31.04	5.34	25.70	0.37
	10/21/2010	31.04	6.59	24.45	-1.25
	5/5/2011	31.04	5.98	25.06	0.61
	4/25/2012	31.04	5.71	25.33	0.27
	12/20/2012	Well inaccessible			
	4/4/2013	31.04	6.18	24.86	-0.47
	4/30/2014	**31.04**	**6.29**	**24.75**	**-0.11**
IW-1	6/10/2009	31.66	7.65	24.01	----
(13-15)	8/27/2009	31.66	7.70	23.96	-0.05
	12/15/2009	31.66	10.99	20.67	-3.29
	3/12/2010	31.66	6.00	25.66	4.99
	10/21/2010	31.66	9.35	22.31	-3.35
	5/5/2011	31.66	6.73	24.93	2.62
	4/25/2012	31.66	8.05	23.61	-1.32
	12/20/2012	31.66	12.88	18.78	-4.83
	4/4/2013	31.66	12.81	18.85	0.07
	4/30/2014	**31.66**	**6.01**	**25.65**	**6.80**

Table 2a: Groundwater Elevation Data
3442 Adeline Street St. Oakland, CA 94608

Event	Date	Average Water Table Elevation (ft amsl)	Change from Previous Episode (ft)	Flow Direction (gradient) (ft/ft)
1	6/10/2009	22.40	----	West (0.0186)
2	8/27/2009	21.85	-0.55	West (0.0186)
3	12/15/2009	23.42	1.58	West (0.0181)
4	3/12/2010	25.75	2.33	West (0.004)
5	10/21/2010	22.81	-2.94	North Northwest (0.041)
6	5/5/2011	25.13	2.32	West (0.01)
7	4/25/2012	25.52	0.38	West (0.01)
8	12/20/2012	25.01	-0.51	West (0.01)
9	4/4/2013	23.41	-1.60	West (0.01)
10	4/30/2014	24.62	1.21	West (0.01)

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			Method 8015C		*Method 8021B*				
		(ft)	(µg/L)						
ESL - current or potenital DW			100	100	5.0	1.0	40	30	20
ESL - not potenital DW			640	500	1,800	27	130	43	100
MW-1	04/17/09	7.01	97	220	<5.0	10	<0.5	3.0	5.4
	08/27/09	6.96	----	7,000	<180	610	10	320	220
	09/17/09	----	----	92	<15	0.91	0.70	<0.5	<0.5
	12/15/09	5.96	----	2500	<50	170	6.4	66	120
	03/12/10	5.06	----	500	<5.0	4.0	1.1	0.6	0.7
	10/21/10	7.00	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	05/05/11	5.88	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/25/12	5.33	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/20/12	5.35	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/04/13	6.63	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/30/14	**5.42**	----	**83**	**<5.0**	**<0.5**	**0.53**	**<0.5**	**<0.5**
MW-2	04/17/09	9.50	2,200	7,000	<100	850	19	93	470
	08/27/09	10.50	----	26,000	<1,200	3,600	<25	1,200	3,000
	12/15/09	8.68	----	25,000	<250	2,900	70	1,500	2,400
	03/12/10	5.69	----	7,300	<350	590	7.0	6.4	680
	10/21/10	7.51	----	1,900	<15	140	1.4	28	140
	05/05/11	6.68	----	27,000	<180	2,300	13	1,700	2,600
	04/25/12	5.58	----	9,600	<120	440	8.8	260	920
	12/20/12	6.47	----	2,900	<35	63	2.6	21	85
	04/04/13	7.56	----	7,900	<150	960	10	380	690
	04/30/14	**6.62**	----	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3	04/17/09	8.44	2,200	10,000	<110	930	5.6	270	920
	08/27/09	8.59	----	17,000	<250	3800	38	730	710
	09/17/09	----	----	260	<15	1.8	1.0	<0.5	2.1
	10/14/09	----	----	1,800	<30	220	13	37	130
	12/15/09	7.66	----	4,900	<50	890	13	160	130
	03/12/10	Well inaccessible							
	10/21/10	Well inaccessible							

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			Method 8015C		*Method 8021B*				
		(ft)	(µg/L)						
ESL - current or potenital DW			100	100	5.0	1.0	40	30	20
ESL - not potenital DW			640	500	1,800	27	130	43	100
MW-4	04/17/09	9.45	1,200	4,700	<30	140	2.0	28	18
	08/27/09	10.29	----	4,300	<25	75	11	8.6	3.4
	12/15/09	8.19	----	3,000	<15	64	11	5.6	3.3
	03/12/10	5.45	----	6,100	<35	1200	14	170	6.2
	10/21/10	9.93	----	1,900	<15	120	4.7	5.7	1.8
	05/05/11	6.60	----	4,900	<25	560	2.6	41	17
	04/25/12	5.73	----	330	<5.0	23	1.4	2.0	4.2
	12/20/12	6.21	----	150	<5.0	5.8	<0.5	<0.5	<0.5
	04/04/13	7.88	----	1,000	<5.0	30	4.6	0.61	0.65
	04/30/14	**6.92**	----	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-5	05/22/09	9.13	2,800	14,000	<100	3,000	12	340	420
	08/27/09	9.54	----	25,000	<400	3,300	36	110	160
	12/15/09	8.33	----	8,200	<250	1,200	6.9	300	610
	03/12/10	Well inaccessible							
	10/21/10	6.85	----	<50	<5.0	1.3	<0.5	<0.5	<0.5
	05/05/11	3.25	----	790	<20	140	1.0	29	30
	04/25/12	4.51	----	67	<5.0	3.4	<0.5	1.4	0.83
	12/20/12	5.43	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/04/13	7.25	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/30/14	Well inaccessible		----	----	----	----	----	----
MW-6	04/17/09	9.98	1,000	5,600	<300	210	3.0	180	160
	08/27/09	11.84	----	2,200	<120	98	7.9	20	1.1
	12/15/09	8.59	----	4,700	<250	370	6.9	260	300
	03/12/10	4.66	----	9,300	<90	210	12	250	110
	10/21/10	10.00	----	380	<5.0	35	1.2	4.6	3.8
	05/05/11	5.59	----	7,000	<75	80	2.9	120	28
	04/25/12	4.82	----	7,400	<150	99	11.0	100	27
	12/20/12	5.23	----	5,500	<50	81	3.1	78	16
	04/04/13	7.37	----	5,300	<70	76	5.7	50	12
	04/30/14	**5.89**	**----**	**670**	**<5.0**	**12**	**2.4**	**2.3**	**0.77**

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			Method 8015C		*Method 8021B*				
		(ft)	(µg/L)						
ESL - current or potenital DW			100	100	5.0	1.0	40	30	20
ESL - not potenital DW			640	500	1,800	27	130	43	100
MW-7	04/17/09	6.53	3,700	12,000	<120	1,000	37	100	36
	08/27/09	6.19	----	12,000	<100	550	30	130	33
	12/15/09	5.71	----	9,600	<100	620	26	140	20
	03/12/10	5.34	----	10,000	<25	850	33	87	28
	10/21/10	6.59	----	7,900	<180	1,100	22	44	21
	05/05/11	5.98	----	9,300	<200	690	23	42	21
	04/25/12	5.71	----	8,600	<75	1,000	31	10	20
	12/20/12	Well inaccesable due to parked car							
	04/04/13	6.18	----	12,000	<210	2,800	51	96	37
	04/30/14	**6.29**	**----**	**220**	**<5.0**	**39**	**0.75**	**0.53**	**<0.5**
IW-1	05/22/09	7.65	680	1,200	<15	58	2.7	2.3	18
	08/27/09	7.70	----	160	<5.0	4.1	0.5	0.8	1.6
	09/17/09	----	----	300	<5.0	8.0	1.5	1.4	0.85
	12/15/09	10.99	----	220	<5.0	5.4	1.4	0.65	0.7
	03/12/10	6.00	----	<50	<5.0	1.9	<0.5	<0.5	<0.5
	10/21/10	9.35	**----**	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	05/05/11	6.73	**----**	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/25/12	8.05	**----**	<50	<5.0	0.91	<0.5	<0.5	0.57
	12/20/12	12.88	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/04/13	12.81	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/30/14	**6.01**	**----**	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
BF-1	03/27/09	----	----	19,000	<250	890	27	460	1,200
post H_2O_2	06/17/09	----	----	6,700	<150	840	19	170	150
pre-aeration	08/10/09	----	----	11,000	<120	710	14	440	290
post aeration	08/27/09	----	----	9,600	<90	590	14	350	220
	09/13/09	----	----	<50	<5.0	1.2	<0.5	<0.5	<0.5
	10/14/09	----	----	2,400	<10	83	1.9	5.0	120
	12/11/09	6.70	----	200	<5.0	12	<0.5	2.2	9.6
	03/12/10	5.61	----	<50	<0.5	2.9	<0.5	<0.5	<0.5
	10/21/10	7.95	----	560	<5.0	68	1.5	6.7	25
	05/05/11	6.25	----	<50	<5.0	0.65	<0.5	<0.5	<0.5
	04/25/12	5.85	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/20/12	5.82	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/04/13	6.78	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/30/14	**5.36**	**----**	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			Method 8015C		*Method 8021B*				
		(ft)	(µg/L)						
ESL - current or potenital DW			100	100	5.0	1.0	40	30	20
ESL - not potenital DW			640	500	1,800	27	130	43	100
BF-5	08/27/09	----	----	170	<25	32	0.55	4.2	220
	10/14/09	----	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/11/09	7.25	**----**	130	<5.0	40	<0.5	0.91	<0.5
	03/12/10	6.09	**----**	<50	<5.0	4.3	<0.5	0.91	<0.5
	10/21/10	8.62	**----**	80	<5.0	8.8	<0.5	1.4	4.5
	05/05/11	6.75	**----**	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/25/12	6.37	**----**	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/20/12	6.33	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/04/13	7.25	----	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	04/30/14	**5.83**	**----**	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Notes:
µg/L = micrograms per liter
ESL = Environmental Screening Level
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
680 = most recent sample

APPENDIX A

Groundwater Monitoring Well
Field Sampling Forms

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.12		
Depth of Well	17.00		
Depth to Water (from top of casing)	5'5"		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
0855	.5	18.00	5.86	729	39.75	270.8	Clear
	1	17.98	7.22	729	4.02	271.5	"
	1.5	17.95	7.27	729	44.11	274.3	"
	2	17.94	7.28	729	46.62	276.4	"
	2.5	17.94	7.24	729	47.71	277.0	"
901	3	17.93	7.28	729	48.56	279.6	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Bottom of drop tube at 11.5 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.19		
Depth of Well	17.00		
Depth to Water (from top of casing)	6.62		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
951	.5	17.84	7.62	332	29.19	300.4	clear
	1	17.67	7.46	321	43.04	303.8	"
	1.5	17.61	7.33	317	44.9	313.7	"
	2	17.59	7.28	316	64.72	314.0	"
	2.5	17.55	6.86	315	46.33	323.6	"
957	3	17.54	6.78	315	45.96	324.4	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Bottom of drop tube at 11.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.68		
Depth of Well	17.00		
Depth to Water (from top of casing)	6.92		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
1004	.5	17.85	7.04	266	32.61	299.3	Clear
	1	17.75	7.45	266	42.35	305.4	"
	1.5	17.68	7.25	266	43.07	313.4	"
	2	17.63	6.94	266	43.35	321.7	"
	2.5	17.61	6.79	271	43.25	325.3	"
1015	3	17.60	6.67	276	42.8	327.2	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Bottom of drop tube at 11.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	30.39		
Depth of Well	17.00		
Depth to Water (from top of casing)			
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Bottom of drop tube at 10.0 feet bgs. Purge rate <0.5 liters per minute.

OBSTRUCTED - COULD NOT Access well to Sample

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-6

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	29.34		
Depth of Well	17.00		
Depth to Water (from top of casing)	5.89		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
1022	.5	18.43	5.03	508	8.69	269.1	Clear
	1	17.10	7.52	811	3.41	194.2	"
	1.5	17.05	7.58	810	4.31	167.9	"
	2	16.94	7.29	809	6.18	157.2	"
	2.5	16.88	7.17	806	7.37	140.2	"
1028	3	16.84	7.19	804	8.41	129.6	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with slight hydrocarbon odor.

Bottom of drop tube at 13.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-7

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.04		
Depth of Well	17.00		
Depth to Water (from top of casing)	6.29		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
0747	.5	18.45	7.90	1195	6.79	-19.1	clear
	1	18.46	7.85	1194	3.29	-14.0	
	1.5	18.45	7.79	1193	2.67	-17.1	
	2	18.46	7.74	1193	2.28	-17.6	
	2.5	18.45	7.73	1192	2.04	-18.6	
0753	3	18.45	7.70	1192	1.85	-16.7	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odors.

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-1

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.66		
Depth of Well	15.00		
Depth to Water (from top of casing)	6.01		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
0759	.5	18.97	6.96	591	22.13	296.6	Clear
	1	18.98	7.04	587	29.32	294.6	"
	1.5	18.97	7.04	584	31.05	294.2	"
	2	18.97	7.03	582	31.74	293.7	
	2.5	18.97	7.02	580	32.08	293.2	
0805	3	18.98	7.02	580	32.24	292.5	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with no odors.

Bottom of drop tube at 13.0 feet bgs. Purge rate <0.5 liters per minute.

Screened interval - 13-15 feet bgs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: BF-1

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	Unsurveyed		
Depth of Well	12.00		
Depth to Water (from top of casing)	~~5.4~~ 5.36		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
917	.5	18.79	8.07	737	8.83	223.1	Clear
	1	18.75	8.09	741	8.95	208.1	"
	1.5	18.70	8.02	749	9.07	182.8	"
	2	18.68	7.96	760	9.20	169.3	"
	2.5	18.66	7.90	776	9.47	159.8	"
923	3	18.64	7.85	795	9.84	147.0	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with no hydrocarbon odor.

Bottom of drop tube at 10.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: BF-5

Project Name:	Zimmerman	Date of Sampling:	4-30-14
Job Number:	281939	Name of Sampler:	J. Sigg
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	Unsurveyed		
Depth of Well	12.00		
Depth to Water (from top of casing)	5.83		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)			
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
934	.5	18.78	6.99	1106	4.36	252.7	~~clear~~ clear
	1	18.67	7.69	1117	2.09	128.0	"
	1.5	18.63	7.70	1117	1.66	105.3	"
	2	18.61	7.66	1116	1.35	93.7	"
	2.5	18.60	7.57	1115	1.48	81.0	"
940	3	18.59	7.51	1114	1.48	76.0	"

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no odor.

Bottom of drop tube at 11.0 feet bgs. Purge rate <0.5 liters per minute.

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Robert Flory Bill To: same
Company: AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597 E-Mail:rflory@aeiconsultants.com
Tele: (925) 746-6000 Fax: (925) 746-6099
Project #: 281939 Project Name:Zimmerman
Project Location:3442 Adeline Street, Oakland, CA
Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
MW-1		4-30-14	0901	3		X					X	X		
MW-2			0957	3		X					X	X		
MW-4			1015	3		X					X	X		
MW-5														
MW-6			1028	3		X					X	X		
MW-7			0753	3		X					X	X		
IW-1			0805	3		X					X	X		
BF-1			0923	3		X					X	X		
BF-5		4-1	0940	3		X					X	X		

Analysis Request																		Other	Comments
MBTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) –Multi-range w silica gel	Hexane Extractable Materia w/sil gel EPA 1664	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI					
X																			
X																			
X																			
X																			
X																			
X																			
X																			
X																			
X																			
X																			

Relinquished By:	Date:	Time:	Received By:
John Zagy	4-30-14	1124	Viola Carter 4/30/14 11:24
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTHER
ICE/t°				
GOOD CONDITION				
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
PRESERVATION APPROPRIATE				
CONTAINERS				
PERSERVED IN LAB				

APPENDIX B

Laboratory Analytical Reports
With
Chain of Custody Documentation

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1404B32

Report Created for: AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: Robert Flory
Project P.O.:
Project Name: #281939;Zimmerman

Project Received: 04/30/2014

Analytical Report reviewed & approved for release on 05/06/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: #281939;Zimmerman
WorkOrder: 1404B32

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifier

S	spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1404B32
Project:	#281939;Zimmerman	**Extraction Method:**	SW5030B
Date Received:	4/30/14 12:16	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	5/1/14-5/2/14	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	**1404B32-001A**	**Water**	**04/30/2014 09:01**	**GC3**	**89942**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**83**	50	1	05/01/2014 19:39
MTBE	ND	5.0	1	05/01/2014 19:39
Benzene	ND	0.50	1	05/01/2014 19:39
Toluene	**0.53**	0.50	1	05/01/2014 19:39
Ethylbenzene	ND	0.50	1	05/01/2014 19:39
Xylenes	ND	0.50	1	05/01/2014 19:39

Surrogates	REC (%)	Limits	Analytical Comments: d1	
aaa-TFT	99	70-130		05/01/2014 19:39

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	**1404B32-002A**	**Water**	**04/30/2014 09:57**	**GC3**	**89942**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	05/01/2014 06:47
MTBE	ND	5.0	1	05/01/2014 06:47
Benzene	ND	0.50	1	05/01/2014 06:47
Toluene	ND	0.50	1	05/01/2014 06:47
Ethylbenzene	ND	0.50	1	05/01/2014 06:47
Xylenes	ND	0.50	1	05/01/2014 06:47

Surrogates	REC (%)	Limits	
aaa-TFT	99	70-130	05/01/2014 06:47

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	**1404B32-003A**	**Water**	**04/30/2014 10:15**	**GC3**	**89942**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	05/01/2014 07:47
MTBE	ND	5.0	1	05/01/2014 07:47
Benzene	ND	0.50	1	05/01/2014 07:47
Toluene	ND	0.50	1	05/01/2014 07:47
Ethylbenzene	ND	0.50	1	05/01/2014 07:47
Xylenes	ND	0.50	1	05/01/2014 07:47

Surrogates	REC (%)	Limits	
aaa-TFT	98	70-130	05/01/2014 07:47

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1404B32
Project:	#281939;Zimmerman	**Extraction Method:**	SW5030B
Date Received:	4/30/14 12:16	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	5/1/14-5/2/14	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-6	**1404B32-004A**	**Water**	**04/30/2014 10:28**	**GC3**	**89942**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**670**	50	1	05/01/2014 08:17
MTBE	ND	5.0	1	05/01/2014 08:17
Benzene	**12**	0.50	1	05/01/2014 08:17
Toluene	**2.4**	0.50	1	05/01/2014 08:17
Ethylbenzene	**2.3**	0.50	1	05/01/2014 08:17
Xylenes	**0.77**	0.50	1	05/01/2014 08:17

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c4
aaa-TFT	153	S	70-130	05/01/2014 08:17

MW-7	1404B32-005A	Water	04/30/2014 07:53	GC3	89942

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**220**	50	1	05/01/2014 08:47
MTBE	ND	5.0	1	05/01/2014 08:47
Benzene	**39**	0.50	1	05/01/2014 08:47
Toluene	**0.75**	0.50	1	05/01/2014 08:47
Ethylbenzene	**0.53**	0.50	1	05/01/2014 08:47
Xylenes	ND	0.50	1	05/01/2014 08:47

Surrogates	REC (%)	Limits	Analytical Comments: d1
aaa-TFT	106	70-130	05/01/2014 08:47

IW-1	1404B32-006A	Water	04/30/2014 08:05	GC3	89942

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	05/01/2014 09:17
MTBE	ND	5.0	1	05/01/2014 09:17
Benzene	ND	0.50	1	05/01/2014 09:17
Toluene	ND	0.50	1	05/01/2014 09:17
Ethylbenzene	ND	0.50	1	05/01/2014 09:17
Xylenes	ND	0.50	1	05/01/2014 09:17

Surrogates	REC (%)	Limits	
aaa-TFT	97	70-130	05/01/2014 09:17

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1404B32
Project:	#281939;Zimmerman	**Extraction Method:**	SW5030B
Date Received:	4/30/14 12:16	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	5/1/14-5/2/14	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BF-1	**1404B32-007A**	**Water**	**04/30/2014 09:23**	**GC3**	**89992**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	05/02/2014 02:12
MTBE	ND	5.0	1	05/02/2014 02:12
Benzene	ND	0.50	1	05/02/2014 02:12
Toluene	ND	0.50	1	05/02/2014 02:12
Ethylbenzene	ND	0.50	1	05/02/2014 02:12
Xylenes	ND	0.50	1	05/02/2014 02:12
Surrogates	REC (%)	Limits		
aaa-TFT	97	70-130		05/02/2014 02:12

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
BF-5	**1404B32-008A**	**Water**	**04/30/2014 09:40**	**GC3**	**89992**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	05/02/2014 02:42
MTBE	ND	5.0	1	05/02/2014 02:42
Benzene	ND	0.50	1	05/02/2014 02:42
Toluene	ND	0.50	1	05/02/2014 02:42
Ethylbenzene	ND	0.50	1	05/02/2014 02:42
Xylenes	ND	0.50	1	05/02/2014 02:42
Surrogates	REC (%)	Limits		
aaa-TFT	101	70-130		05/02/2014 02:42

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1404B32
Date Prepared:	5/1/14	**BatchID:**	89942
Date Analyzed:	4/30/14	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	#281939;Zimmerman	**Sample ID:**	MB/LCS-89942 1404A72-006AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	55.6	40	60	-	92.7	70-130
MTBE	ND	10.3	5.0	10	-	103	70-130
Benzene	ND	9.14	0.50	10	-	91.4	70-130
Toluene	ND	9.01	0.50	10	-	90.1	70-130
Ethylbenzene	ND	9.13	0.50	10	-	91.3	70-130
Xylenes	ND	27.8	0.50	30	-	92.6	70-130
Surrogate Recovery							
aaa-TFT	9.48	9.49		10	95	95	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	51.3	57.7	60	ND	85.4	96.2	70-130	11.9	20
MTBE	13.7	13.6	10	ND	137,F1	136,F1	70-130	0.486	20
Benzene	9.45	9.46	10	ND	94.5	94.6	70-130	0.0970	20
Toluene	9.32	9.36	10	ND	93.2	93.6	70-130	0.341	20
Ethylbenzene	9.38	9.36	10	ND	93.8	93.6	70-130	0.204	20
Xylenes	28.4	28.4	30	ND	94.6	94.6	70-130	0	20
Surrogate Recovery									
aaa-TFT	9.47	9.46	10		95	95	70-130	0	20

(Cont.)

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1404B32
Date Prepared:	5/2/14	**BatchID:**	89992
Date Analyzed:	5/1/14	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	#281939;Zimmerman	**Sample ID:**	MB/LCS-89992 1404B62-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	56.1	40	60	-	93.5	70-130
MTBE	ND	10.4	5.0	10	-	104	70-130
Benzene	ND	9.35	0.50	10	-	93.5	70-130
Toluene	ND	9.27	0.50	10	-	92.7	70-130
Ethylbenzene	ND	9.35	0.50	10	-	93.5	70-130
Xylenes	ND	28.3	0.50	30	-	94.3	70-130
Surrogate Recovery							
aaa-TFT	9.50	9.33		10	95	93	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	65.5	59.2	60	ND	109	98.7	70-130	10.1	20
MTBE	8.78	8.99	10	ND	87.8	89.9	70-130	2.36	20
Benzene	9.55	9.61	10	ND	95.5	96.1	70-130	0.588	20
Toluene	9.73	9.61	10	ND	97.3	96.1	70-130	1.30	20
Ethylbenzene	9.55	9.58	10	ND	95.5	95.8	70-130	0.274	20
Xylenes	28.9	28.9	30	ND	96.4	96.4	70-130	0	20
Surrogate Recovery									
aaa-TFT	10.2	9.75	10		102	98	70-130	4.90	20

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1404B32 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 944-2895

Email: rflory@aeiconsultants.com
cc/3rd Party:
PO:
ProjectNo: #281939;Zimmerman

Bill to:
Sara Guerin
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.co

Requested TAT: 5 days

Date Received: **04/30/2014**
Date Printed: **04/30/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1404B32-001	MW-1	Water	4/30/2014 9:01	☐	A	A										
1404B32-002	MW-2	Water	4/30/2014 9:57	☐	A											
1404B32-003	MW-4	Water	4/30/2014 10:15	☐	A											
1404B32-004	MW-6	Water	4/30/2014 10:28	☐	A											
1404B32-005	MW-7	Water	4/30/2014 7:53	☐	A											
1404B32-006	IW-1	Water	4/30/2014 8:05	☐	A											
1404B32-007	BF-1	Water	4/30/2014 9:23	☐	A											
1404B32-008	BF-5	Water	4/30/2014 9:40	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Shana Carter

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Project: #281939;Zimmerman
Comments:

QC Level: LEVEL 2
Client Contact: Robert Flory
Contact's Email: rflory@aeiconsultants.com

Work Order: 1404B32
Date Received: 4/30/2014

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1404B32-001A	MW-1	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 9:01	5 days	Trace	☐	
1404B32-002A	MW-2	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 9:57	5 days	Trace	☐	
1404B32-003A	MW-4	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 10:15	5 days	Trace	☐	
1404B32-004A	MW-6	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 10:28	5 days	Trace	☐	
1404B32-005A	MW-7	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 7:53	5 days	Trace	☐	
1404B32-006A	IW-1	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 8:05	5 days	Trace	☐	
1404B32-007A	BF-1	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 9:23	5 days	Trace	☐	
1404B32-008A	BF-5	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	☐	4/30/2014 9:40	5 days	Trace	☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
VOA w/ HCl = 43mL VOA w/ HCl

1404B32

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Robert Flory	**Bill To: same**
Company: AEI Consultants	
2500 Camino Diablo	
Walnut Creek, CA 94597	**E-Mail:**rflory@aeiconsultants.com
Tele: (925) 746-6000	**Fax: (925) 746-6099**
Project #: 281939	**Project Name:Zimmerman**
Project Location:3442 Adeline Street, Oakland, CA	
Sampler Signature: John Sorgy	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
MW-1		4-30-14	0901	3		X					X	X		
MW-2			0957	3		X					X	X		
MW-4			1015	3		X					X	X		
~~MW-5~~														
MW-6			1028	3		X					X	X		
MW-7			0753	3		X					X	X		
IW-1			0805	3		X					X	X		
BF-1			0923	3		X					X	X		
BF-5			0940	3		X					X	X		

Analysis Request

MBTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) –Multi-range w silica gel	Hexane Extractable Materia w/sil gel EPA 1664	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
X																
X																
X																
X																
X																
X																
X																
X																
X																
X																

ICE/t° 5.4
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB
PRESERVATION VOAS | O&G | METALS | OTHER

REC'D SEALED & INTACT VIA

Relinquished By:	Date:	Time:	Received By:
John Sorgy	4-30-14	1124	Shara Carter 4/30/14 11:25
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____ PRESERVATION VOAS | O&G | METALS | OTHER
GOOD CONDITION_____ APPROPRIATE
HEAD SPACE ABSENT_____ CONTAINERS_____
DECHLORINATED IN LAB_____ PERSERVED IN LAB_____

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **AEI Consultants**
Date and Time Received: **4/30/2014 12:16:06 PM**

Project Name: **#281939;Zimmerman**
LogIn Reviewed by: Shana Carter

WorkOrder N°: **1404B32** Matrix: Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	NA ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Comments: